



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,968	09/08/2004	Masayuki Nate	121042	6933
25944	7590	12/11/2006		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER LU, JIPING	
			ART UNIT 3749	PAPER NUMBER

DATE MAILED: 12/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/506,968

Applicant(s)

NATE ET AL.

Examiner

Jiping Lu

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 17,19,21,23,25,27,29 and 31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-16,18,20,22,24,26,28,30,32 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/8/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Species I, Figs. 4, 5, 7;

Species II, Figs. 8(a)-8(c)

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

2. The claims are deemed to correspond to the species listed above in the following manner:

Species I, claims 14-15, 16, 18, 20, 22, 24, 26, 28, 30, 32-33;

Species II, claims 17, 19, 21, 23, 25, 27, 29, 31

The following claim(s) are generic: none.

3. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: the inventive concept for species I claims is the step of covering at least a part of the outer wall with a guide covering the outer wall so as not to come into contact with the outer wall and the inventive concept for species II claims is the step of covering at least a part of the outer wall with a guide covering the outer wall so as to come into contact with the outer wall.

4. During a telephone conversation with Attorney Thomas J. Pardini on 11/1/2006 a provisional election was made with traverse to prosecute the invention of Species I, claims 14-15, 16, 18, 20, 22, 24, 26, 28, 30, 32-33. Affirmation of this election must be made by applicant in replying to this Office action. Claims 17, 19, 21, 23, 25, 27, 29, 31 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### *Claim Rejections - 35 USC § 112*

6. The following is a quotation of the fourth paragraph of 35 U.S.C. 112:

Subject to the following paragraph, a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

7. Claim 16 is rejected under 35 U.S.C. 112, fourth paragraph, as failing to further limit the subject matter of a previous claim. The claimed limitation of “the outer wall and the guide **come into contact** with each other” in claim 16 failed to further limit the subject matter of “guide covering the outer wall so as **not to come into contact** with the outer wall” in claim 1.

*Claim Rejections - 35 USC § 102*

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 14, 20, 32-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Takamitsu et al. (JP 2001-019560).

Takamitsu disclose a method of drying a honeycomb formed body wherein the ceramic honeycomb body 13 is dried by covering at least a part of the outer wall with a guide 11, 12 spaced without contact from the outer surfaces of the honeycomb same as the applicant's.

10. Claims 14, 20, 32-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Takamitsu et al. (JP 2002-020173).

Takamitsu disclose a method of drying a honeycomb formed body wherein the ceramic honeycomb body M1 is dried by covering at least a part of the outer wall with a guide G1 spaced without contact from the outer surfaces of the honeycomb same as the applicant's.

11. Claims 14, 18, 20, 32-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Yano et al. (U. S. Pat. 6,725,567).

Yano et al. disclose a method of drying a honeycomb formed body wherein the ceramic honeycomb body M is dried by covering at least a part of the outer wall with a guide 5 spaced without contact from the outer surfaces of the honeycomb same as the applicant's. The guide 5 has an opening (at 6).

12. Claims 14, 18, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Brundage et al. (U. S. Pat. 5,388,345).

Brundage et al. disclose a method of drying a honeycomb formed body wherein the honeycomb body 30 is dried by covering at least a part of the outer wall with a guide 20 spaced without contact from the outer surfaces of the honeycomb same as the applicant's. The guide 20 has an opening (not numbered, see Fig. 4a).

13. Claims 14, 18, 20, 32-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Araya (U. S. Pat. 6,539,633).

Araya et al. disclose a method of drying a honeycomb formed body wherein the ceramic honeycomb body 10 is dried by covering at least a part of the outer wall with a guide 12 spaced without contact from the outer surfaces of the honeycomb same as the applicant's. The guide 5 has an opening (at 20).

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takamitsu et al. (JP 2001-019560) or Takamitsu et al. (JP 2002-020173) or Yano et al. (U. S. Pat. 6,725,567) or Brundage et al. (U. S. Pat. 5,388,345) or Araya (U. S. Pat. 6,539,633).

The honeycomb formed body drying method of Takamitsu et al. (560' or 173') or Yano et al. or Brundage et al. or Araya as above includes all that is recited in claims 15 and 16 except for the distance between the outer wall and the guide covering the outer wall and the pressure applied to the outer wall from the guide. It would have been obvious to one having ordinary skill in the art at the time the invention was made to place the guide at any desired distance from the outer wall of the honeycomb body and apply any desired pressure to the outer wall in order to obtain optimum drying result since applicant has not disclosed that the claimed distance and pressure solve any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill in the art, and it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

16. Claims 22, 24, 26, 28, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takamitsu et al. (JP 2001-019560) or Takamitsu et al. (JP 2002-020173) or Yano et al. (U. S.

Art Unit: 3749

Pat. 6,725,567) or Brundage et al. (U. S. Pat. 5,388,345) or Araya (U. S. Pat. 6,539,633) in view of Miura et al. (U. S. Pat. 6,932,932) or Kazuya (JP 2001-130973).

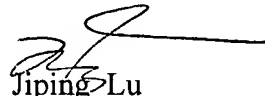
The honeycomb formed body drying method of Takamitsu et al. (560' or 173') or Yano et al. or Brundage et al. or Araya as above includes all that is recited in claims 22, 24, 26, 28, 30 except for the drying includes a microwave drying step followed by a hot air drying step. Miura et al. or Kazuya teaches a method for drying a honeycomb formed body including the steps of microwave drying and a hot air drying after the microwave drying for uniformly and rapidly drying the honeycomb body. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the drying method of Takamitsu et al. (560' or 173') or Yano et al. or Brundage et al. or Araya to include drying steps of microwave drying followed by hot air drying as taught by Miura et al. or Kazuya in order to uniformly and rapidly drying the honeycomb body. With regard to the claimed range of microwave output and dewatering ratio, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose the any desired microwave output range and dewatering ratio in order to obtain optimum drying result since applicant has not disclosed that the claimed distance and pressure solve any stated problem in a new or unexpected way or is for any particular purpose which is unobvious to one of ordinary skill in the art, and it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

*Conclusion*

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jiping Lu whose telephone number is 571 272 4878. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, COCKS JOSIAH can be reached on 571 272-4874. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Jiping Lu  
Primary Examiner  
Art Unit 3749

J. L.